

StorageTek Tape Analytics

Quick Start Guide

Version 2.0

E41174-01

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This guide introduces you to Oracle's StorageTek Tape Analytics (STA). It is intended to provide just a sampling of the major STA screens and key features of the user interface.

When you are finished, we hope you will feel confident to explore more of STA on your own. See ["Next Steps"](#) on page 1-25 and ["Related Documents"](#) on page 1-25 for additional resources.

Quick Start Tasks

This guide provides step-by-step instructions for the following tasks. These tasks can be performed by anyone with a valid STA username, and they should take about an hour to complete.

- [Task 1, "Log In"](#)
- [Task 2, "Apply a Dashboard Template"](#)
- [Task 3, "Explore the Dashboard"](#)
- [Task 4, "Display Information About a Library"](#)
- [Task 5, "Display Media Exchanges for a Library"](#)
- [Task 6, "Reset a Screen Filter"](#)
- [Task 7, "Display Full Details for Selected Exchanges"](#)
- [Task 8, "Display Aggregated Drive Data \(Drives Analysis\)"](#)
- [Task 9, "Export Data to a Spreadsheet"](#)
- [Task 10, "Display Context-Sensitive Help"](#)
- [Task 11, "Log Out"](#)

Before You Begin

Before starting, you need to obtain the following information from your STA administrator:

- Recommended Web browsers and versions for STA. See the *STA Requirements Guide* for details.
- Web address (URL and port number) of the STA application on your company's network
- Your STA username and password

Note: Sample screen shots are provided throughout this guide. The data you see is specific to your company, but the layout and organization of the screens should match the samples.

Task 1 Log In

Use the following steps to log into STA.

1. Start a supported web browser on your computer.
2. In the **Location Bar** or **Address** field, enter the STA URL and port number given to you by your STA administrator. A typical URL would be something like `http://hostname:7021/STA`.

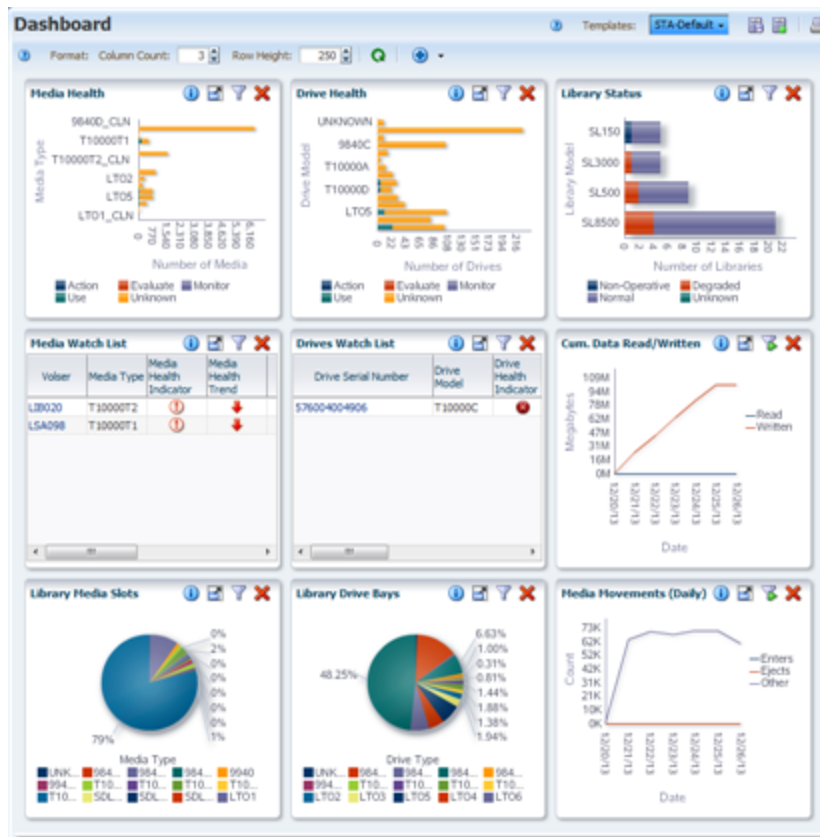
The Login screen appears.

3. Enter the STA username and password you have been assigned, and then click **Login**.

Depending on the preference settings for your STA username, the Accessibility Settings dialog box may appear. STA offers a variety of accessibility features for users with low vision, blindness, color blindness, or other visual impairments. See the *STA Screen Basics Guide* for details.

4. Click **Continue** to bypass this dialog box.

The Dashboard appears. The Dashboard is always the first screen displayed whenever you log into STA. As noted above, you will see data specific to your company, but the screen layout should be the same as the following example.



Task 2 Apply a Dashboard Template

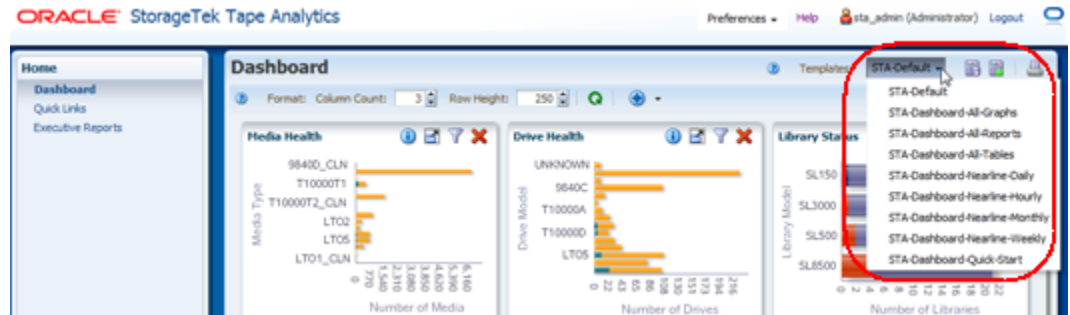
The name of the currently applied template is always displayed in the Templates toolbar, in the top-right portion of the screen.

In this example, the template name is "STA-Default," which is the default Dashboard delivered with the STA application. If a different Dashboard template has been assigned as the default for your STA username, then a different name is displayed here and your Dashboard display varies from the one shown above.

details. Use the following steps to apply a predefined template to the Dashboard display.

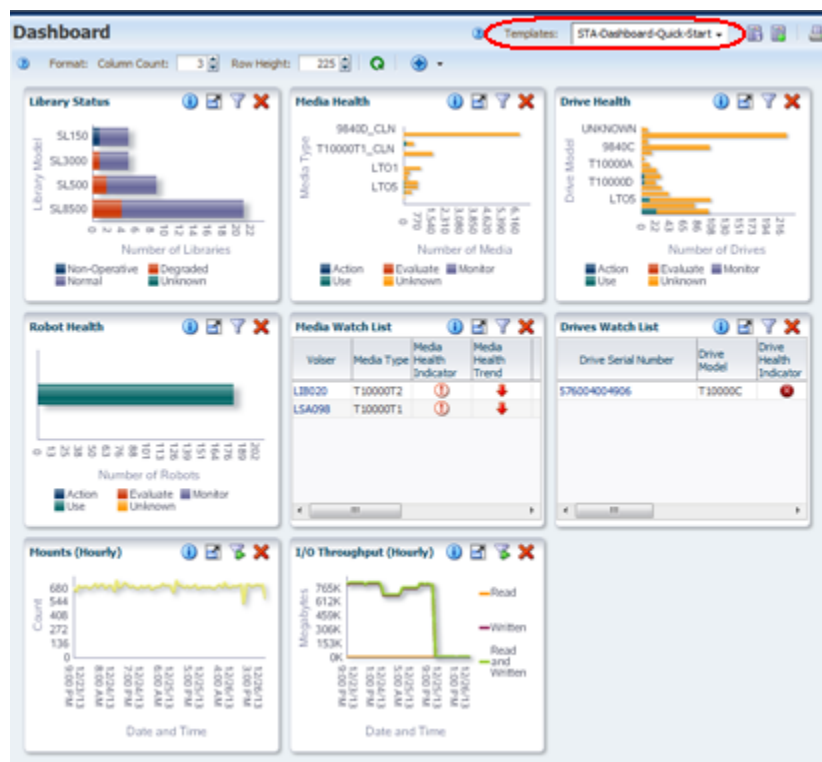
1. Select the **Templates** menu at the top of the screen.

The menu displays all Dashboard templates that are available to your STA username.



2. In the menu, select **STA-Dashboard-Quick-Start**.

The template is applied, and the Dashboard display is updated to the following layout.



Task 3 Explore the Dashboard

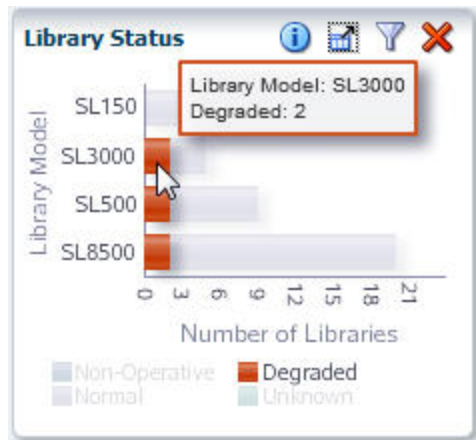
The STA-Dashboard-Quick-Start template provides you with a high-level view of your tape library system. The Dashboard is divided into multiple panes, each showing a different aspect of your library environment.

- The Library Status, Media Health, Drive Health, and Robot Health panes summarize the current condition of your library system components.

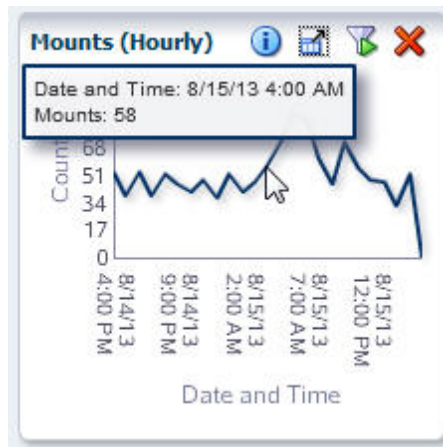
- The Media Watch List and Drives Watch List panes alert you to drives and media that may need attention as soon as possible.
- The Mounts and I/O Throughput panes show line graphs of library activity over the last few hours.

On graphical Dashboard panes, you can display detailed information by moving your mouse over the different sections of the pane. You can also link to other screens from some Dashboard panes. See the *STA Screen Basics Guide* and the *STA User's Guide* for details. Use the following steps to explore some of these features.

1. Choose any bar chart, such as the Library Status pane, and move your mouse over the graph to display detailed values for each of the bar chart segments. In this example, rolling over the SL3000 bar reveals there are two SL3000 libraries in a degraded state.



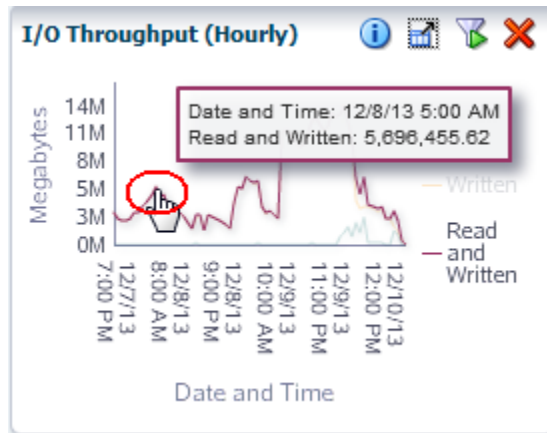
2. Move your mouse over any line graph, such as the Mounts (Hourly) pane, to display detail for each of the data points on the line.



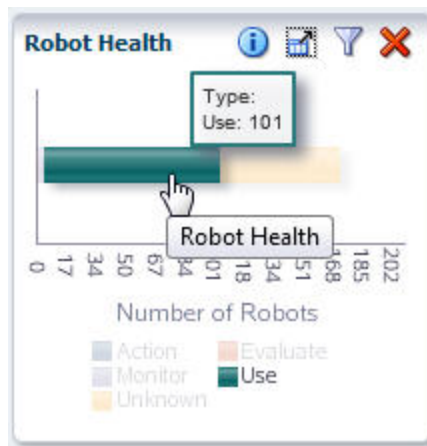
3. The units of measure and scaling of the graphs vary from pane to pane, so be sure to check the labels on each axis. STA adjusts the scaling according to the actual data displayed to show as much detail as possible.

For example, in the following I/O Throughput (Hourly) pane, the vertical axis is labeled "Megabytes," with markers every 3M (three million), from 0M to 14M. Each data point on the line graph, therefore, represents *millions of megabytes*, which

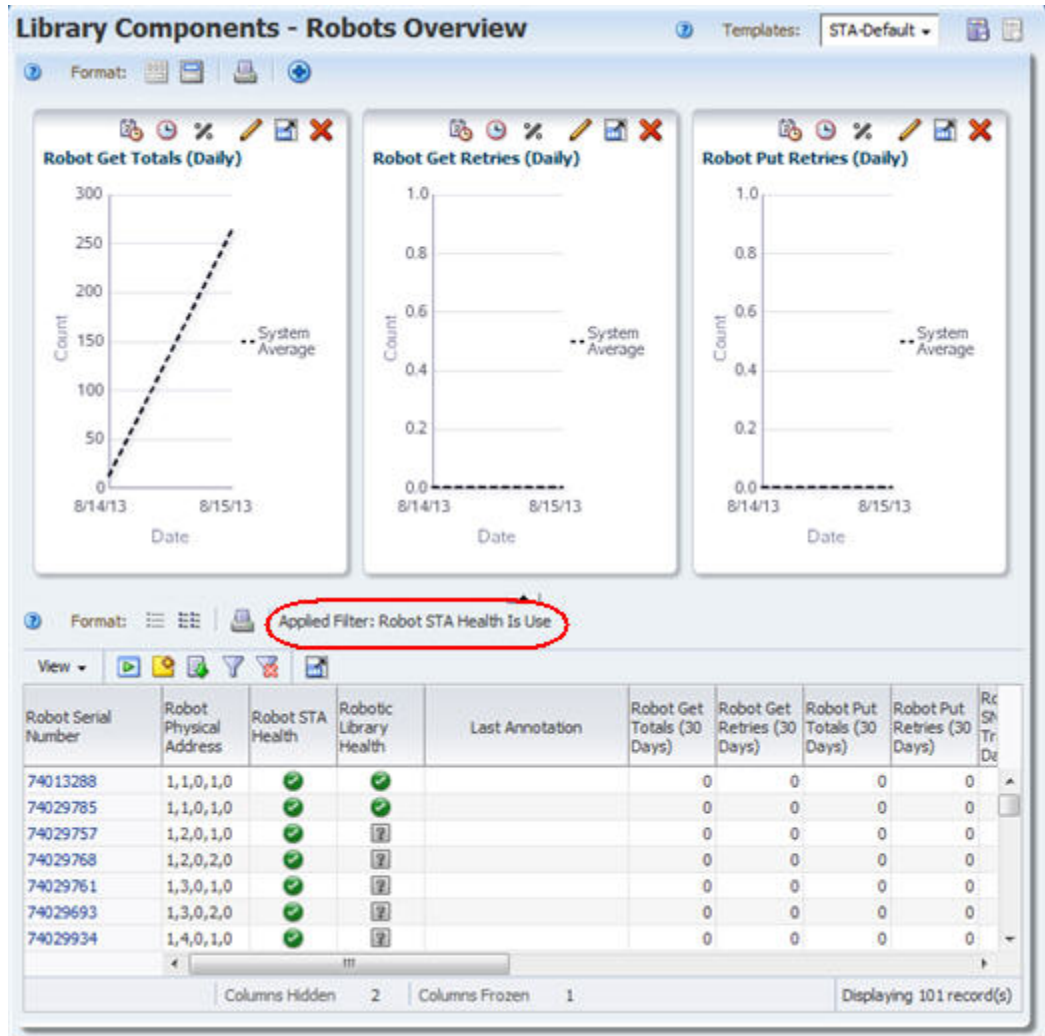
converts to terabytes (TB). The hover text for the selected data point indicates 5,696,455.62 MB Read and Written, which converts to roughly 5.69 TB.



4. Bar chart, pie chart, and area chart segments are active links. In the Robot Health pane, click a bar chart segment.



You are taken to the Library Components – Robots Overview screen, which displays detailed information about the robots included in the bar segment that you clicked—in this example, all robots with a "Use" health.



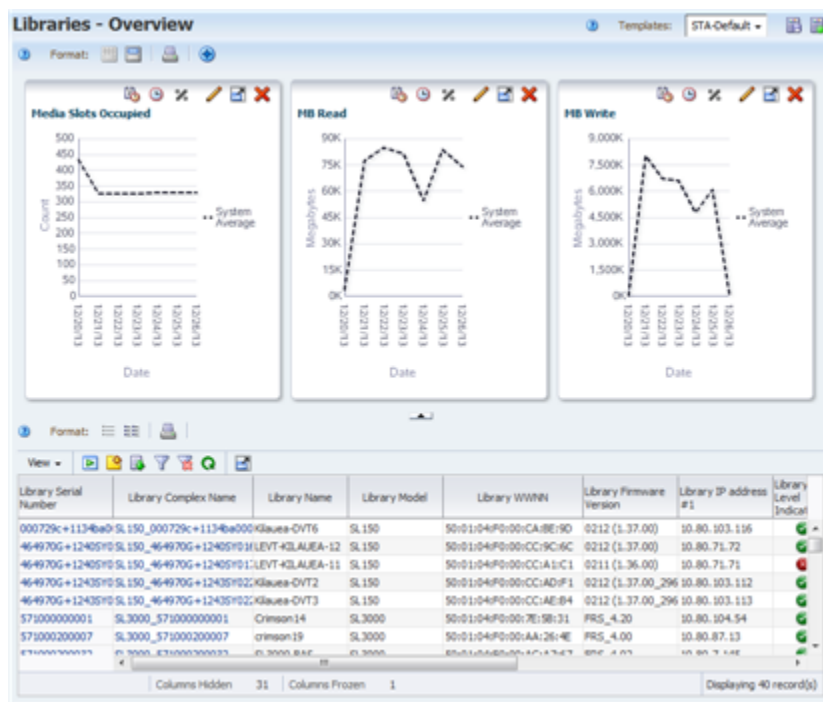
Task 4 Display Information About a Library

The Navigation Bar on the left side of the screen is the primary method for moving around the STA screens. It consists of a series of vertical *accordion* tabs that expand and collapse according to your selections. Use the following steps to display the Libraries – Overview screen.

1. In the Navigation Bar, the **Tape System Hardware** tab is expanded because you are currently on a screen within that tab. Select **Libraries > Overview**.



The Libraries – Overview screen is displayed. Following is an example of the STA-Default template delivered with the STA application. As with the Dashboard, this screen display may vary if a custom template has been assigned to your STA username as the default.



- Note that the screen is divided into a Graphics Area at the top and a Table Area below. Most STA Overview screens include these two sections. See the *STA Screen Basics Guide* for details.

Also note the status line at the bottom of the screen. It indicates the following:

- Columns Hidden – it is normal for table columns to be hidden. STA collects hundreds of data attributes for your tape library system, and most screen

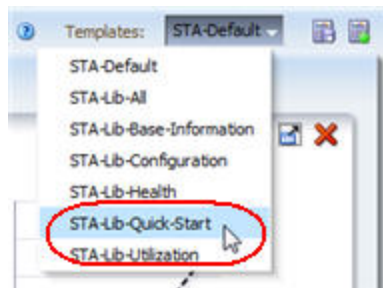
templates display only a subset. You can selectively show or hide any of the available attributes. See the *STA Screen Basics Guide* for details.

- Columns Frozen – The left-most table column is always frozen in position as you scroll to the right on the screen.
- Number of records displayed – In this example, the value displayed indicates that STA is monitoring a tape library system that includes 39 libraries.

571000000001	SL3000_571000000001	Crimson14	SL3000	50:01:04F0:00:70:58:31	FRS_4.20	10.80.104.54	
571000000007	SL3000_571000000007	Crimson19	SL3000	50:01:04F0:00:AA:26:4E	FRS_4.00	10.80.87.13	
571000000032	SL3000_571000000032	SL3000_8AS	SL3000	50:01:04F0:00:AA:26:4E	FRS_4.00	10.80.87.13	

Columns Hidden: 31 | Columns Frozen: 1 | Displaying 40 record(s)

3. Select the **Templates** menu at the top of the screen and select **STA-Lib-Quick-Start**.



4. This template collapses the Graphics Area display so you can display a longer list in the Table Area.

Library Serial Number	Library Name	Library Model	Library Top Level Indicator	Library Firmware Version	Library IP address	Disks (30 Days)	Partitions	Drive Bays Occupied	Drive Bays Unoccupied	Media Slots Occupied
000729c+113+ba0	Glauea-OVT6	SL150	✓	0212 (1.37.00)	10.80.103.116	2509	0	6	0	46
464970G+12405Y0	LEVT-K2LAUEA-12	SL150	✓	0212 (1.37.00)	10.80.71.72	3025	9	20	0	90
464970G+12405Y0	LEVT-K2LAUEA-11	SL150	✓	0211 (1.36.00)	10.80.71.71	0	9	0	10	46
464970G+12405Y0	Glauea-OVT2	SL150	✓	0212 (1.37.00_296)	10.80.103.112	36	4	3	1	28
464970G+12405Y0	Glauea-OVT3	SL150	✓	0212 (1.37.00_296)	10.80.103.113	0	0	20	0	149
571000000001	Crimson14	SL3000	✓	FRS_4.20	10.80.104.54	0	1	32	24	241
571000000007	Crimson19	SL3000	✓	FRS_4.00	10.80.87.13	13	1	2	6	267
571000000032	SL3000_8AS	SL3000	✓	FRS_4.02	10.80.7.145	0	9	38	10	662
571000000056	SL3000-174	SL3000	✓	FRS_4.00	10.80.46.174	0	0	0	0	0

Task 5 Display Media Exchanges for a Library

Although the Navigation Bar is the primary method of navigation, you can also navigate by using active links that occur throughout the STA screens. On the Libraries – Overview screen, the fields with blue text are active links that allow you to navigate to other screens to see related data. Move the mouse over an entry to see the selection cursor.

Libraries - Overview

Format: [Icons] View: [Icons]

Library Serial Number	Library Name	Library Model	Library Top Level Indicator	Library Firmware Version	Library IP address #1	Dismounts (30 Days)	Partitions	Drive Bays Occupied
000729c+1134ba0	Kilauea-DVT6	SL150	✓	0197 (1.29.00_282)	10.80.103.116	0	0	2
464970G+1240SY0	LEVIT-KILAUEA-12	SL150	⚠	0198 (1.30.00)	10.80.71.72	0	8	20
464970G+1243SY0	Kilauea-DVT2	SL150	✓	0198 (1.30.00)	10.80.103.112	150	0	4
464970G+1243SY0	Kilauea-DVT3	SL150	✓	0197 (1.29.00)	10.80.103.113	0	0	20

The Dismounts column shows the total number of media dismounts that have occurred in each library. Each dismount marks the end of an exchange, in which a piece of media has been mounted in a drive and read/write activity has potentially been performed. The libraries send detailed data to STA as each media move, mount, and dismount occurs, and this data is collected, analyzed, and reported by STA across your entire tape library system. See the *STA User's Guide* for details.

Use the following steps to view detailed exchange data.

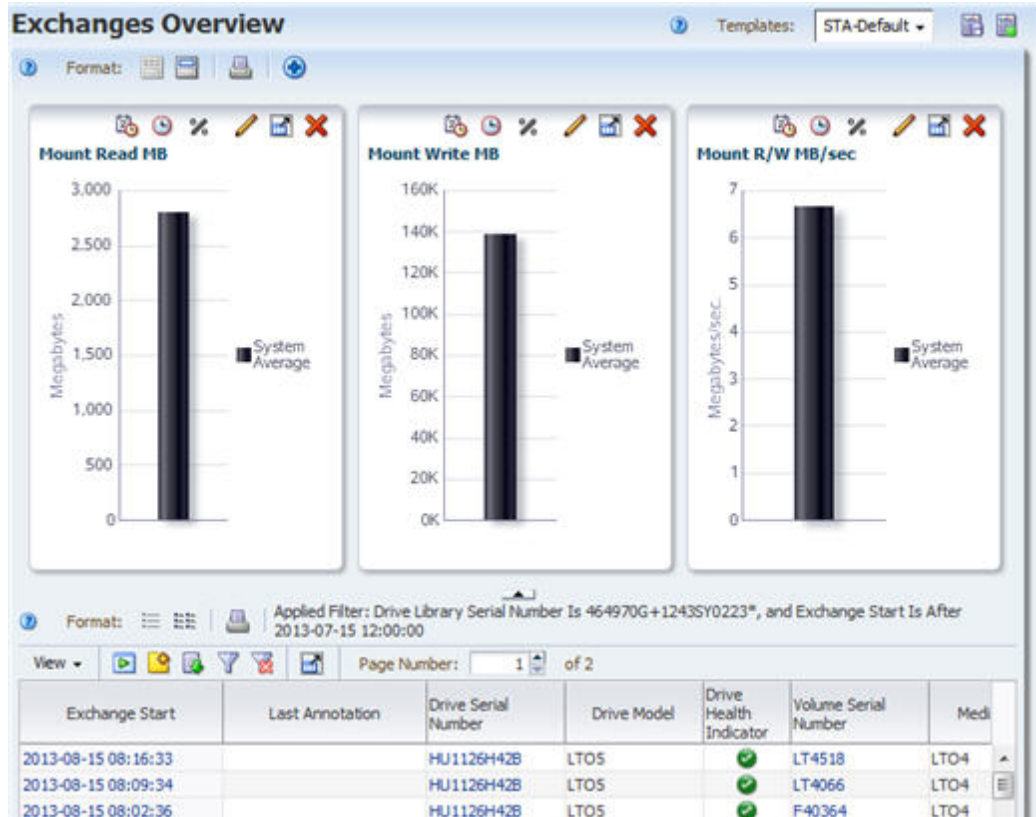
1. Locate a library for which the value in the Dismounts column is greater than zero. This indicates that the library has had some media exchange activity. Click the active link in the Dismounts column.

Libraries - Overview

Format: [Icons] View: [Icons]

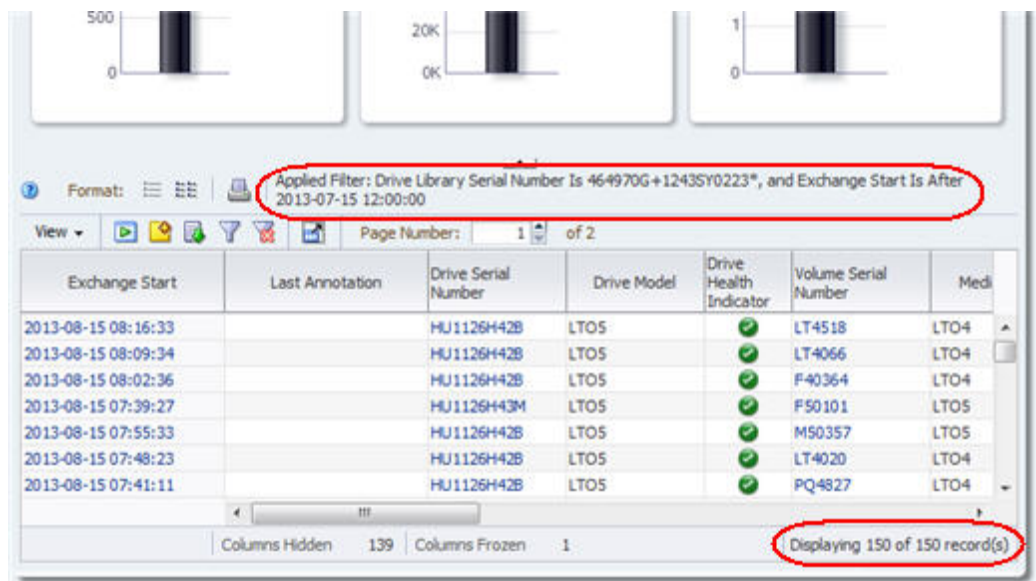
Library Serial Number	Library Name	Library Model	Library Top Level Indicator	Library Firmware Version	Library IP address #1	Dismounts (30 Days)	Partitions	Drive Bays Occupied
000729c+1134ba0	Kilauea-DVT6	SL150	✓	0197 (1.29.00_282)	10.80.103.116	0	0	2
464970G+1240SY0	LEVIT-KILAUEA-12	SL150	⚠	0198 (1.30.00)	10.80.71.72	0	8	20
464970G+1243SY0	Kilauea-DVT2	SL150	✓	0198 (1.30.00)	10.80.103.112	150	0	4
464970G+1243SY0	Kilauea-DVT3	SL150	✓	0197 (1.29.00)	10.80.103.113	0	0	20
571000000001	Crimson14	SL3000	✓	FRS_8.29a	10.80.104.54	0	0	5
571000200007	crimson19	SL3000	✓	FRS_4.00	10.80.87.13	12	0	4
571000200032	SL3000-BAS	SL3000	✓	FRS_4.00	10.80.7.145	0	8	37
571000200056	SL3000-174	SL3000	⚠	FRS_4.00	10.80.46.174	0	2	21

2. You are taken to the Exchanges Overview screen, which shows detail for media exchanges. The most recent exchanges are at the top of the list. The STA-Default template for this screen, delivered with the STA application, is shown below.



Task 6 Reset a Screen Filter

Note that a filter has been applied to the data, and the filter criteria are displayed at the top of the table. Whenever you navigate to a screen using a link, a filter is automatically applied based on criteria intrinsic to the originating link. See the *STA User's Guide* for details.

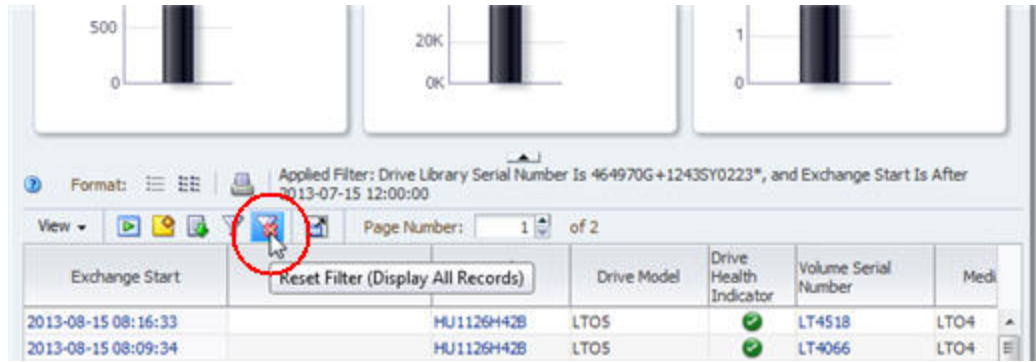


In this example, the filter indicates that the screen displays data only for the selected library and only for exchanges that have occurred since 7/15/2013. In addition, the

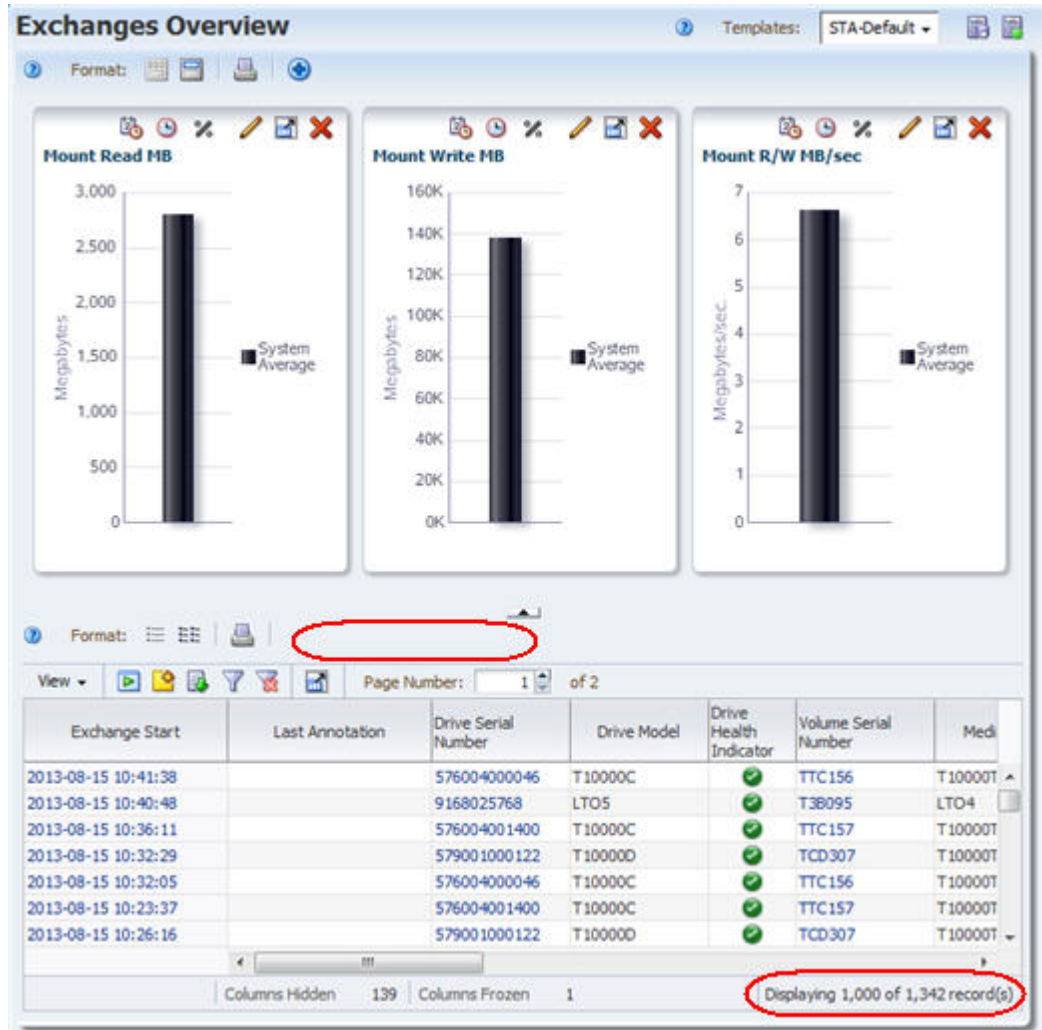
total number of records displayed is indicated in the status line on the bottom-right corner of the screen. You will see filter and record count details specific to your environment.

Use the following steps to reset the screen filter and display all available exchange records.

1. Click the **Reset Filter** icon in the Table Toolbar to remove all filter criteria and display all exchanges for all libraries.



The applied filter area is blank and the record count indicates that all records are available for display.



Task 7 Display Full Details for Selected Exchanges

Use the following steps to display full detail on the three most recent exchanges.

1. Select the top three exchanges in the table, as follows:
 - a. Select the first exchange by clicking anywhere in the top table row other than a column with an active link. For example, on the Exchanges Overview screen you can click in the Last Annotation or Drive Model columns, but not in the Exchange Start or Drive Serial Number columns. Clicking in a column with an active link activates the link and takes you to another screen before you have selected all the records.

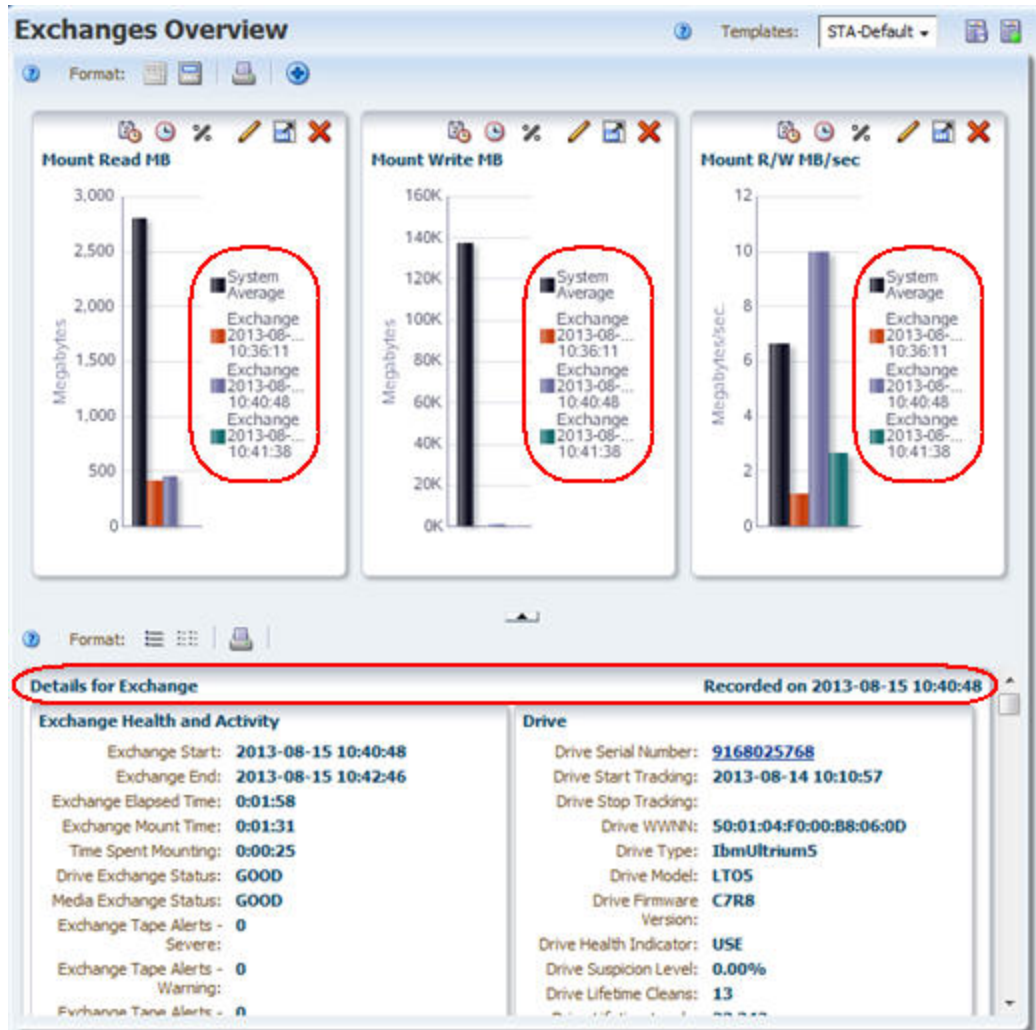
Format: [Icons]			
View ▾	[Icons]	Page Number: 1 of 2	
Exchange Start	Last Annotation	Drive Serial Number	Drive Model
2013-08-21 11:05:05		531002002907	T10000A
2013-08-21 11:04:22		576004000904	T10000C
2013-08-21 10:59:05		572004012140	T10000B
2013-08-21 10:51:48		579001000247	T10000D

- b. To select the next two records in the table, **Shift-click** the third row in the table, again by clicking anywhere in the row other than a column with an active link.

2. Click the **Detail View** icon in the Table Toolbar.

Format: [Icons]						
View ▾	[Icons]	Detail View	Page Number: 1 of 2			
Exchange Start	Last Annotation	Drive Serial Number	Drive Model	Drive Health Indicator	Volume Serial Number	Media
2013-08-15 10:41:38		576004000046	T10000C	✓	TTC156	T10000T
2013-08-15 10:40:48		9168025768	LTO5	✓	T38095	LTO4
2013-08-15 10:36:11		576004001400	T10000C	✓	TTC157	T10000T
2013-08-15 10:32:23		579001000122	T10000D	✓	TTC367	T10000T
2013-08-15 10:32:05		576004000046	T10000C	✓	TTC156	T10000T

The three selected exchanges are added to the graphs at the top of the screen, and full details are displayed in text form in the bottom part of the screen.



- Click the **Collapse Pane** icon in the middle of the screen to hide the Graphics Area and display more of the text detail.



The Detail View displays all available attributes for each record. You can scroll down to view all three selected records.

The attributes for each record are grouped into related information sets. For example, data about the drive used in the exchange is grouped under the "Drive" heading. By grouping related attributes, the Detail View provides a complete picture of the selected records. See the *STA Data Reference Guide* for definitions of the record attributes.

Exchanges Overview

Format: [Icons] Templates: STA-Default

Alert: WORM Overwrite: **No**
Attempted:

Details for Exchange Recorded on 2013-08-15 10:36:11

Exchange Health and Activity

- Exchange Start: **2013-08-15 10:36:11**
- Exchange End: **2013-08-15 10:42:21**
- Exchange Elapsed Time: **0:06:10**
- Exchange Mount Time: **0:05:51**
- Time Spent Mounting: **0:00:19**
- Drive Exchange Status: **GOOD**
- Media Exchange Status: **GOOD**
- Exchange Tape Alerts - Severe: **0**
- Exchange Tape Alerts - Warning: **2**
- Exchange Tape Alerts - Info: **0**
- Mount Read MB/sec: **1.17**
- Mount Write MB/sec: **0.00**
- Mount R/W MB/sec: **1.17**
- Mount Read MB: **411.00**
- Mount Write MB: **0.00**
- Mount R/W MB: **411.00**
- Mount Sent MB: **633.51**

Drive

- Drive Serial Number: [576004001400](#)
- Drive Start Tracking: **2013-08-14 10:10:09**
- Drive Stop Tracking:
- Drive WWNN: **50:01:04:F0:00:88:03:98**
- Drive Type: **T10000c-Enc**
- Drive Model: **T10000C**
- Drive Firmware Version: **1.57.308-5.40**
- Drive Health Indicator: **USE**
- Drive Suspicion Level: **0.00%**
- Drive Lifetime Cleans: **2**
- Drive Lifetime Loads: **14,427**
- Drive Lifetime Meters: **20,881,907**
- Drive Lifetime Power Hours: **4,829**

Media

- Volume Serial Number: [TTC157](#)
- Media Start Tracking: **2013-08-14 10:10:15**
- Media Stop Tracking:

The attribute values displayed in underlined blue text are active links. If you select a link, you are taken to the associated screen, filtered for that value.

4. Click a **Drive Serial Number** link.

Exchanges Overview

Format: [Icons] Templates: STA-Default

Alert: WORM Overwrite: **No**
Attempted:

Details for Exchange Recorded on 2013-08-15 10:36:11

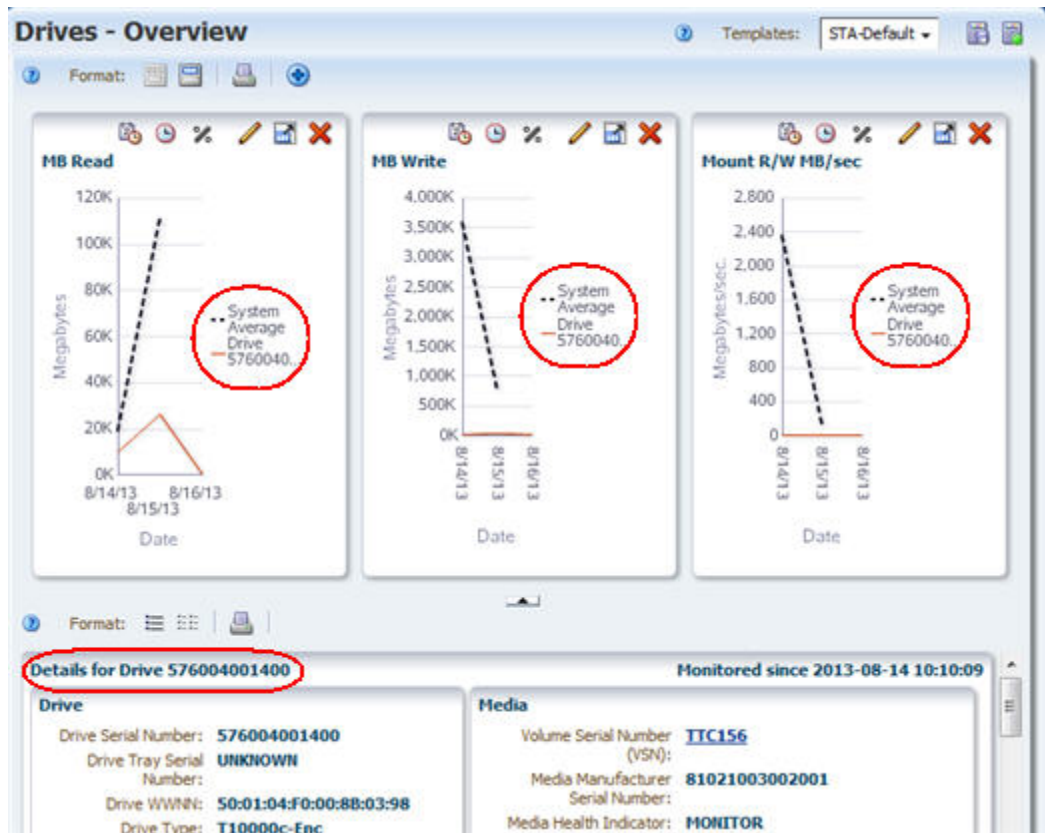
Exchange Health and Activity

- Exchange Start: **2013-08-15 10:36:11**
- Exchange End: **2013-08-15 10:42:21**
- Exchange Elapsed Time: **0:06:10**
- Exchange Mount Time: **0:05:51**
- Time Spent Mounting: **0:00:19**
- Drive Exchange Status: **GOOD**

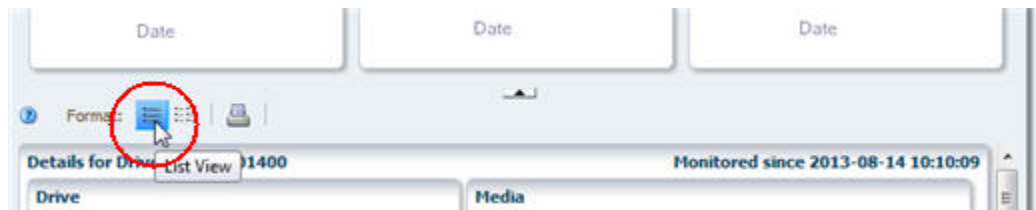
Drive

- Drive Serial Number: [576004001400](#)
- Drive Start Tracking: **2013-08-14 10:10:09**
- Drive Stop Tracking:
- Drive WWNN: **50:01:04:F0:00:88:03:98**
- Drive Type: **T10000c-Enc**
- Drive Model: **T10000C**

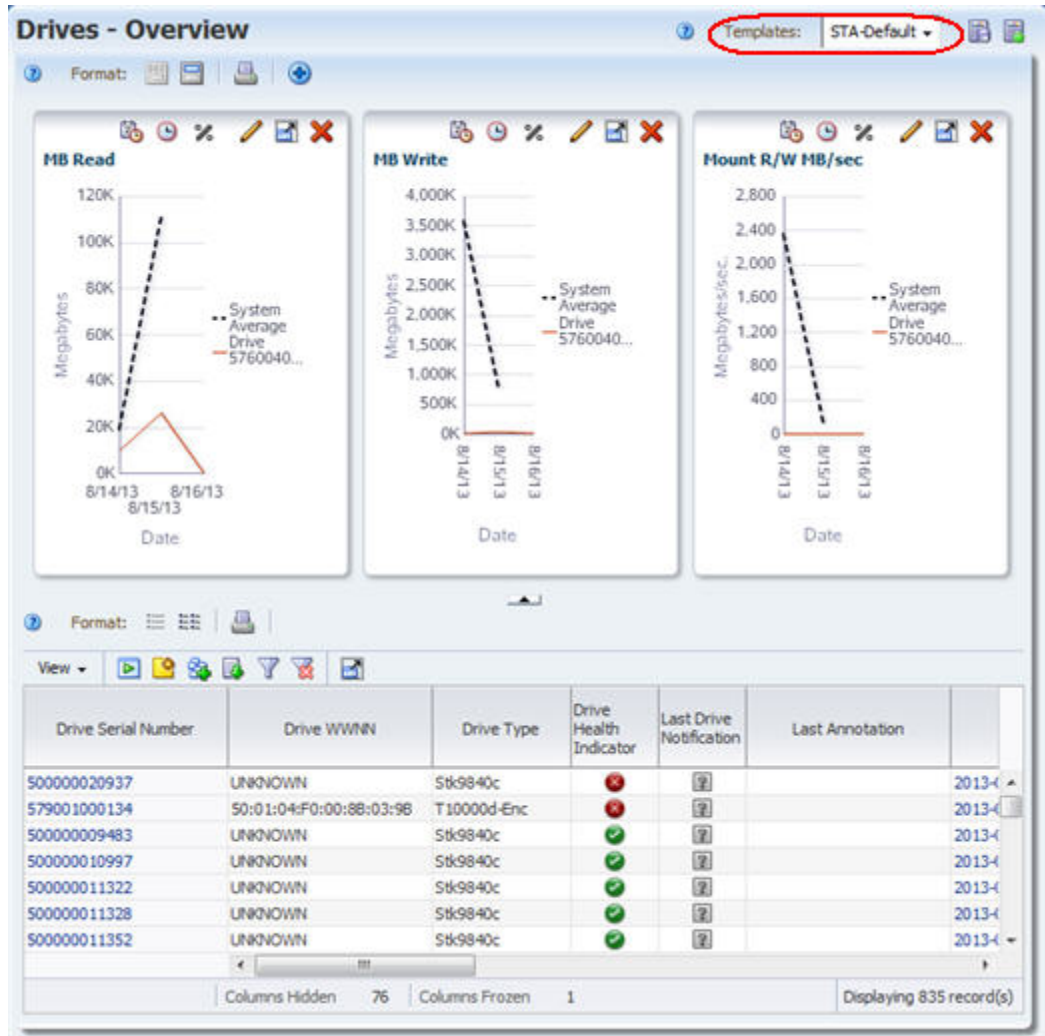
You are taken to the Drives – Overview screen filtered for the selected drive. The screen display remains in the Detail View, and the data for the selected drive is added to the graphs in the top part of the screen.



5. Click the **List View** icon to switch to the List View display.



The example below shows the STA-Default template for the Drives – Overview screen. Your display may look different if a different template has been assigned as the default for your STA username.



Task 8 Display Aggregated Drive Data (Drives Analysis)

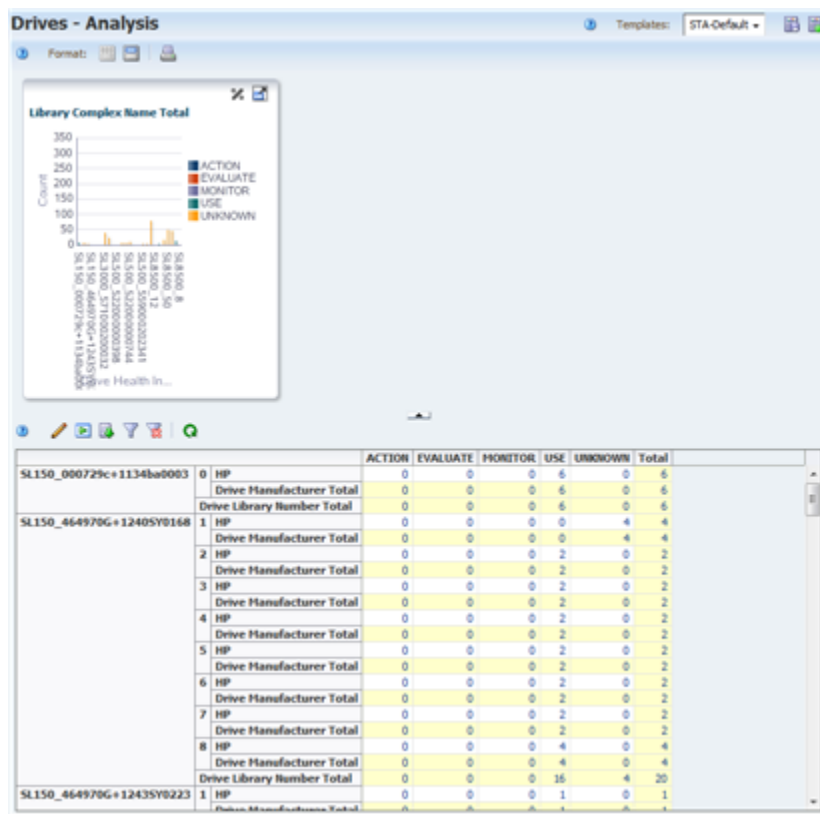
STA Analysis screens show aggregated data for library components or events. The data is displayed in the form of a pivot table, which you can modify to group data into categories of your choice. See the *STA Screen Basics Guide* for details.

Use the following steps to display aggregated data and the underlying detail for it.

1. In the Navigation Bar, select **Analysis** under the **Drives** tab.



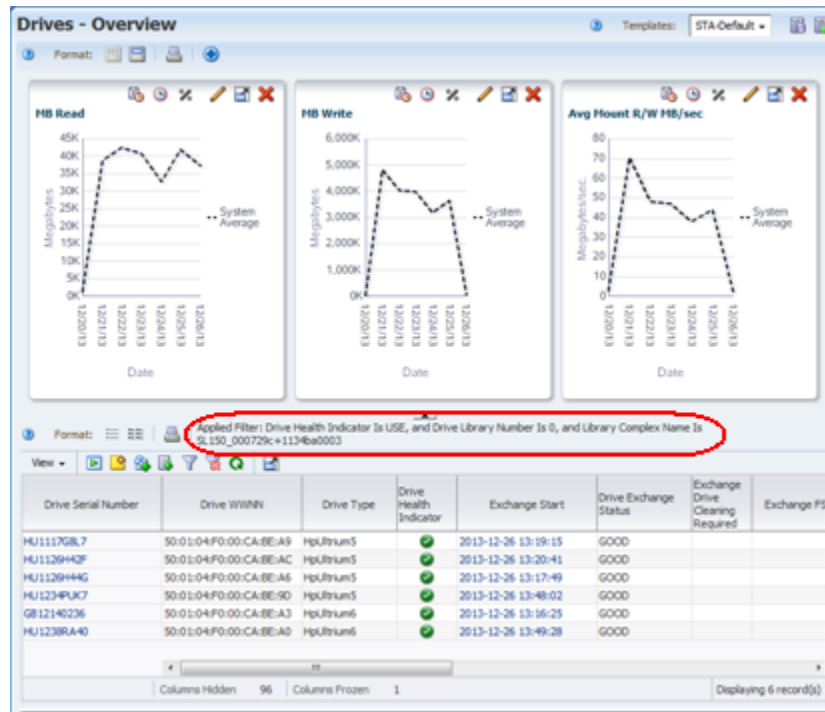
The Drives – Analysis screen has a Graph Area at the top and a pivot table at the bottom. The example below shows the STA-Default template for the Drives – Analysis screen. Drive health data is aggregated by library complex, library ID, and drive manufacturer.



- The values in the table cells are active links. Move the mouse over an entry to see the selection cursor.
- Click the link to see detail for the aggregated number.

		ACTION	EVALUATE	MONITOR	USE	UNKNOWN	Total
SL150_000729c+1134ba0003	0	HP	0	0	0	0	6
		Drive Manufacturer Total	0	0	0	0	6
		Drive Library Number Total	0	0	0	0	6
SL150_464970G+1240SY0168	1	HP	0	0	0	4	4
		Drive Manufacturer Total	0	0	0	4	4

The Drives – Overview screen is displayed, filtered to show just the drives represented by the selected value in the pivot table cell.



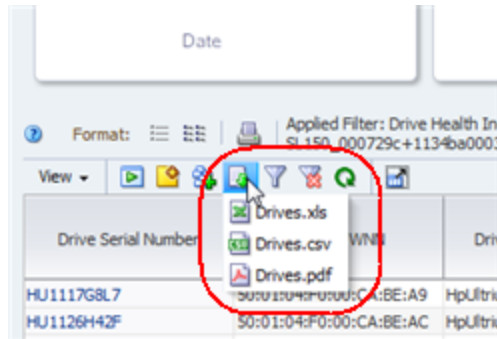
Task 9 Export Data to a Spreadsheet

You can export data from list view tables and pivot tables to a variety of formats. This can be useful for transferring selected STA data to other applications, such as spreadsheets and presentation applications. See the *STA Screen Basics Guide* for details.

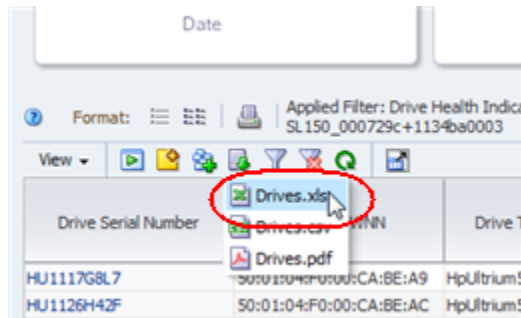
Use the following steps to export table data from the Drives – Overview screen.

1. Select the **Export** icon in the Table Toolbar.

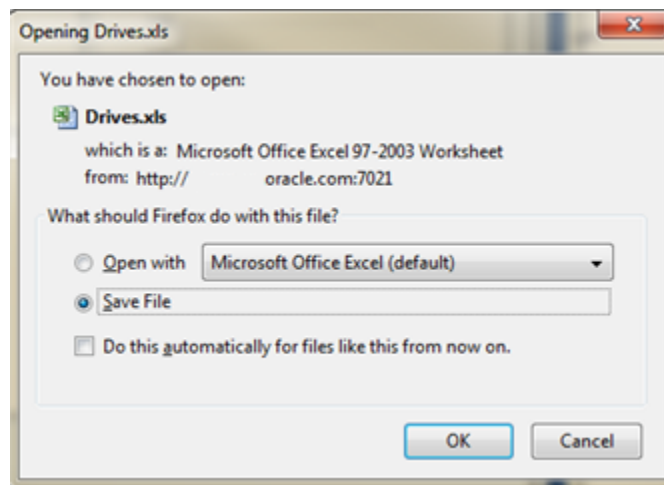
The available formats are listed in the pull-down menu.



2. Select the **Drives.xls** option in the menu.



Depending on your browser settings, a dialog box appears for you to save the file. Following is an example of a typical dialog box on a Windows computer.




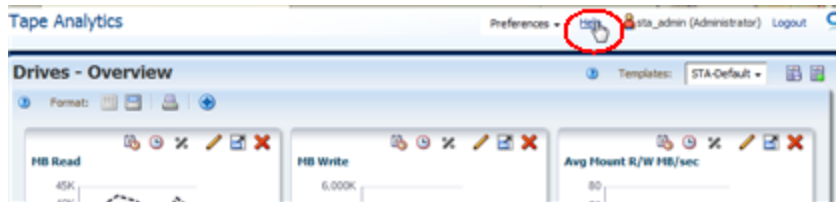
3. Complete the dialog box to save the file.

Task 10 Display Context-Sensitive Help

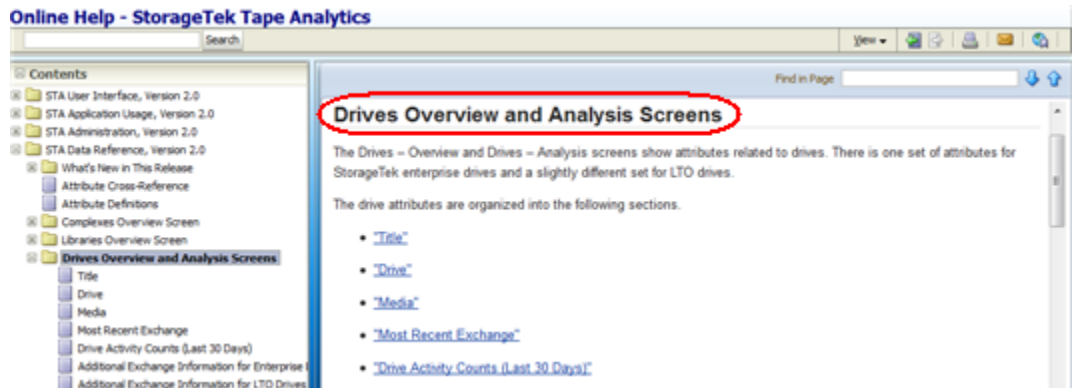
STA includes context-sensitive help for all screens. Most screens have multiple help buttons for different areas of the screen, and depending on which button you select, a context-sensitive help topic describing that area of the screen is displayed.

Use the following steps to display help for different areas of the Drives – Overview screen.

1. Move the mouse over the **Help** link in the Main Toolbar at the top of the screen to see the selection cursor. 



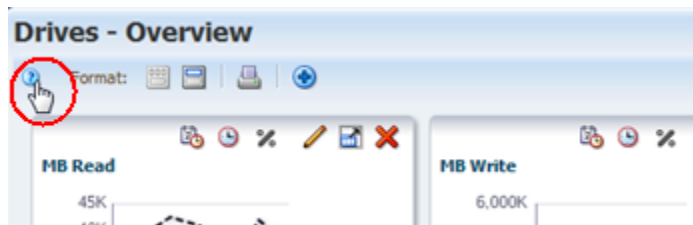
2. Click the link to display a help topic for the current screen (in this case, Drives – Overview). The topic is displayed in a separate tab in your browser window. The **Help** link in the Main Toolbar always displays help for the current screen.



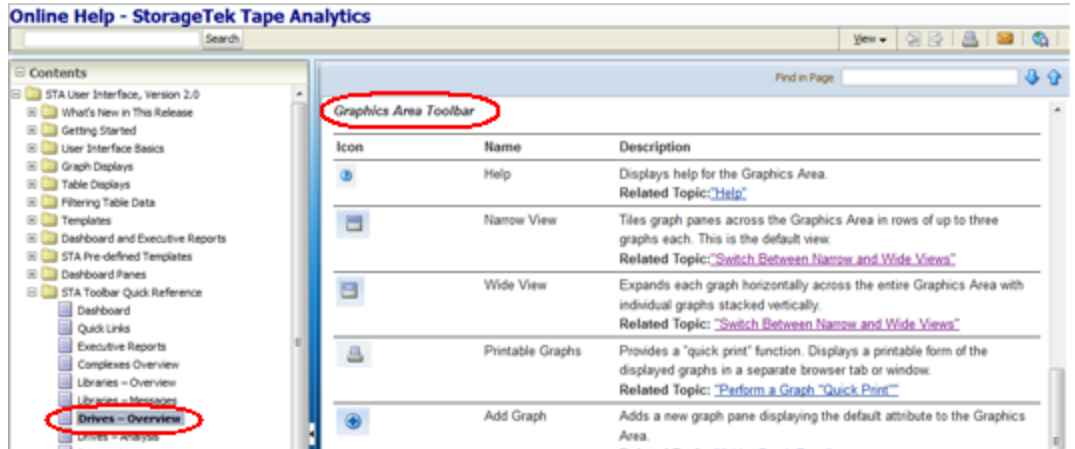
The help topic includes several active links to other topics, which are marked with blue underlined text. Move your cursor over the links to see the selection cursor.



3. Return to the browser tab running the Drives – Overview screen. Click the **Help** icon in the Graphics Area toolbar.



This time a help topic describing the Graphics Area toolbar for the Drives – Overview screen is displayed.



See the *STA User's Guide* for complete details about the STA online help system.

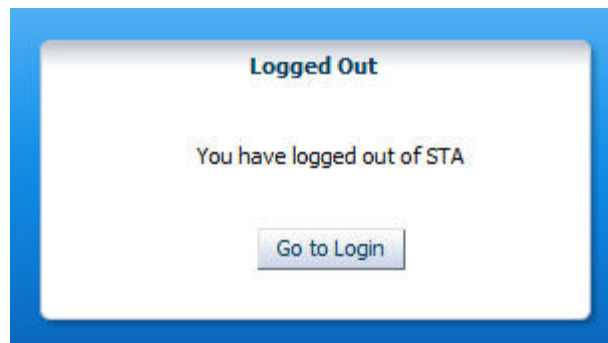
Task 11 Log Out

Use the following steps to end your STA application session. It is always best to explicitly log out of STA, rather than simply closing the browser window or tab in which it is running. When you log out, application memory is released immediately; otherwise, it is released only after your session times out.

1. Return to the browser tab running the STA application.
2. Click the **Logout** link in the Main Toolbar.



The Logged Out dialog box appears.



3. Click the **Go to Login** button to return to the Login dialog box.

This completes the Quick Start activities.

Next Steps

As you gain experience with STA and the data that it collects, you may want to explore how you can use STA to better manage your tape library system. See the *STA User's Guide* for some of the types of questions STA can help you to answer.

Related Documents

The STA documentation set consists of the following documents.

For users of the STA application

- *STA Quick Start Guide*—Use this guide to introduce yourself to the STA application and some features of the user interface.
- *STA User's Guide*—Use this guide for instructions on using STA application features, such as the Dashboard, templates, filters, alerts, Executive Reports, logical groups, and STA media validation.
- *STA Screen Basics Guide*—Use this guide for details about the STA user interface. It describes the screen navigation and layout, and the use of graphs and tables.
- *STA Data Reference Guide*—Use this guide to look up definitions for all STA tape library system screens and data attributes.

For installers and administrators of the STA server and application

- *STA Release Notes*—Read this document before installing and using STA. It contains important release information, including known issues. This document is provided with the STA media pack download.
- *STA Requirements Guide*—Use this guide to learn about minimum and recommended requirements for using STA. This guide includes the following requirements: library, drive, server, user interface, STA media validation, and IBM RACF access control.
- *STA Installation and Configuration Guide*—Use this guide to plan for installation of STA, install the Linux operating system, install the STA application, and then configure library connections, users, and email addresses.
- *STA Administration Guide*—Use this guide to learn about STA administrative tasks, such as error logging, server administration, database backup and restore, STA services configuration, password administration, and SNMP connection configuration.
- *STA Security Guide*—Read this document for important STA security information, including requirements, recommendations, and general security principles.
- *Third Party Licenses and Notices*—Read this document for information about use of third-party technology distributed with the STA product.

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